The risk factors of suicide by poisoning among psychiatry department outpatients

To the editor,

The number of suicides in Japan has exceeded 30 000 per year since 1998. It has increased also in Mie Prefecture during that period. A large-scale study of suicide in Japan during the period 1989–1995 was reported by Yoshioka.[1] That report contained a statistical analysis of the suicides in Mie Prefecture during that period. Mie Prefecture showed intermediate suicide rates similar to the rates for Japan as a whole. We could possibly analyze enough suicide data for this prefecture to investigate the causes in detail. In the present study, we examined the incidence and the circumstances of all suicide cases recorded during the second seven-year period, 1996–2002, that were reported to Mie Prefectural Police Headquarters. We then compared these data with the circumstances of all suicide cases during the first seven-year period, 1989–1995, in Mie Prefecture. All data in the records were completely anonymous after encoding. The statistical analysis was calculated using Fisher's exact test. Medical professionals diagnosed any physical or mental illnesses.

Three age groups were established: younger (under 39), middle-aged (40–64), and elderly (over 65). The suicide methods were classified into eight groups: hanging, drowning, poisoning, gases, motor vehicle crashes, jumping from heights, burning, and others.

During the whole 14-year period 1989–2002, 5048 cases (3276 males and 1772 females) were reported. In the first seven-year period there were 2100 suicides (1297 males and 803 females), while in the second there were 2948 (1979 males and 969 females). Among younger females, 122 cases were reported during the first period and 184 in the second.

As for suicide methods, hanging was the most common (59.4%) in both sexes (males 63.3%, females 52.1%) in the latter period. Poisoning accounted for 5.3% of suicides in both sexes (males 4.2%, females 7.3%). The only significant change in methods between the two periods was that poisoning among younger females increased remarkably ($P < 0.05$) (Table 1). Poisoning was divided into three types: farm chemicals, insecticides and herbicides (I); antipsychotic drugs or sleep drugs (II); and others (III). Among younger females, there were 4 suicides by poisoning, with a mean age of 32.3 years (SD 4.8) (I: 4 cases, II and III: none) during the first seven-year period and 21 cases, with a mean age of 29.3 years (SD 7.3) (I: 3 cases, II: 18 cases, III: none) during the second. In the second seven-year period, the number of suicides by antipsychotic drugs or sleep drugs among younger females increased markedly over the first period.

Table 1
Suicide methods in female

		1989–1995 (%)	1996–2002 (%)
All age	Hanging	49.9	54.3
	Drowning	20.3	17.1
	Poisoning	7.3	7.2
	Gases	1.9	2.4
	Impact with vehicles	4.4	3.7
	Jumping	6.3	8.3
	Burning	4.0	3.9
	Others	6.0	3.1
~39 y	Hanging	36.1	43.5
	Drowning	10.7	7.6
	Poisoning	3.3	11.4(x)
	Gases	4.1	5.4
	Impact with vehicles	10.7	7.1
	Jumping	17.2	18.5
	Burning	9.0	5.4
	Others	9.0	1.1
40 ~ 64 y	Hanging	41.8	50.4
	Drowning	25.2	18.8
	Poisoning	8.2	6.3
	Gases	2.7	4.0
	Impact with vehicles	5.1	3.4
	Jumping	4.4	8.3
	Burning	4.4	4.6
	Others	8.2	4.3
65y ~	Hanging	60.5	62.0
	Drowning	19.6	19.3
	Poisoning	7.9	6.3
	Gases	0.5	0.0
	Impact with vehicles	1.8	2.5
	Jumping	4.2	4.3
	Burning	2.1	2.5
	Others	3.4	3.1

(x: $P < 0.05$).

We analyzed the background factors of 18 cases of suicide by antipsychotic or sleep drugs in the second period among younger females whose mean age was 28.2 years (SD 7.2). The factors included main diagnosis, department administering the main medical treatment, admission status (inpatient, outpatient, neither), employment

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status, family constitution, and history of suicide attempts.

In detail, the main diagnoses were "psychiatric disorders", "physical disorders", and "healthy subjects". The main departments of medical treatment were "psychiatry", "physical" (internal medicine, surgery, orthopedics, gynecology, urology, etc.) and "none". The admission statuses were: "visiting treatment" (outpatients), "hospitalization treatment" (inpatients), and "none". Employment status included: "unemployed" and "employed". Family constitution was "living with family" and "alone". Histories of past suicide attempts was "+" and "−".

The results are shown in Table 2.

The statistically significant factors were: "Psychiatric disorders" out of "main diagnosis" ($P < 0.01$), "department of psychiatry" out of "main department of medical treatment" ($P < 0.01$), "visiting treatment" out of "admission status" ($P < 0.05$), "unemployed" out of "employment status" ($P < 0.05$), "living with family" out of "family constitution" ($P < 0.05$) and "previous attempts" in "history of suicide attempts" ($P < 0.05$). Therefore, young female patients who were medically treated at a department of psychiatry, were unemployed, were living with family, or had made previous suicide attempts were considered to be at marked risk for suicide. We think that an adequate intervention to decrease poisoning among younger females would lead to a decrease in the number of suicides. Those involved in psychiatric practice should pay attention to patients who present such risk factors.[2] Medical staff should recommend hospitalization when an outpatient at a department of psychiatry has been contemplating suicide. In addition, outpatients who have risk factors should consult especially with family members. We propose that prospective and appropriate treatments by psychiatrists are important in order to reduce suicide.[3] Although many papers[4,5] regarding suicide have been published, few have tackled the prevention of suicide by poisoning among younger people.

In the present study, we propose that improved care in psychiatric practice should lower the incidence of suicide, which has been increasing rapidly in Japan.

Table 2
Detailed information on 18 suicides by antipsychotic or sleep drugs among younger females during 1996–2002

Average age: Mean 28.2 years (SD 7.2)
Main diagnosis: "Psychiatric disorders": 15 cases (83.3%) ($P < 0.01$)
[Mood disorders: 10 cases (66.7%)
(Depressive disorders: 8 cases
Bipolar disorders: 2 cases)
Schizophrenia: 2 cases (13.3%)
Alcohol-related disorders: 2 cases (13.3%)
Eating disorders: 1 case (6.7%)]
"Physical disorders": none (0.0%)
"Healthy subjects": 3 cases (16.7%)
Department of main medical treatment:
Psychiatry: 15 cases (83.3%) ($P < 0.01$)
Others: none (0.0%)
None: 3 cases (16.7%)
Admission status: "Treatment": 15 cases (83.3%)
Visiting: 13 cases ($P < 0.05$)
Hospitalization: 2 cases
"None": 3 cases (16.7%)
Employment status: Unemployed: 14 cases (77.8%) ($P < 0.05$)
Employed: 4 cases (22.2%)
Family constitution: Living with family: 14 cases (77.8%) ($P < 0.05$)
Living alone: 4 cases (22.2%)
History of suicide attempts: (+): 13 cases (72.2%) ($P < 0.05$)
(−): 5 cases (27.8%)

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Reply to letter of comment 'Trans-metatarsal amputation as a complication of child sexual abuse'

Sir,

The authors have become aware of a comment[1] on our article titled "Trans-metatarsal amputation as a complication of child sexual abuse".[2] The comment was not critical of our case study, but instead sought to provide a political commentary on the social context of child maltreatment in Turkey. Some of the comments in the response by John Puntis and H. Kirpalani related to Turkish governments' actions to improve child protection not being compatible with UN Convention on Children's Rights and human rights violations involving adolescents under 18 years of age, which should not be part of a democratic society, are indeed true. However, the interest of the authors of the original article in child abuse and neglect and its prevention was directed in the first place at improving professional medical, social, and legal care to abused and neglected children. Indirectly, the article also could be seen as reflective of their interest in improving professional participation in the democratization of their society, as well. The fact remains, nevertheless, that what we published was a case study that called for heightened vigilance when it comes to matters of child protection in societies where professional training and standards are in relatively early stages of development.

The commentators' claim that this mismanagement represents a "deeper malaise within a society where the most vulnerable count for little" is not acceptable since this state of child protection services is not unique to Turkey, but is shared among many developing countries, even by some relatively more developed countries (personal experience in grant reviewing on projects from Europe). We share the perspective of Puntis and Kirpalani that child protection professionals everywhere need to be aware of the systematic abuse of youth by states and non-state agents (societal abuse) and in addition to that of global child abuse as well, as in the case of wars. Yet, this is hardly the thrust of our research and reporting. Poorer countries in the world, like Turkey, may be faulted for not allocating a greater share of resources for child protection, but attributing the failure to do so to a deeper societal malaise is an unnecessarily broad leap that would label majority of the world's population into this category.[3] The wealthy nations of the world have hardly resolved the issue of child abuse. If this journal were the place to politicize such issues in terms of national ideologies, then certainly some among us, vigilant to protect children everywhere in the world, would be raising concerns about tens of thousands of innocents caught in the path of military adventure especially following unjustified invasion of certain regions of the world. As it is, our article was about a serious episode of abuse mismanaged by some of the professionals who encountered him on entry to the medical system and after involvement with the legal system. All the good people of Turkey would be deeply saddened by the event. The authors did take the initiative to share this report

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